Total Eclipse Chemical Management System

Reference Manual Total Eclipse

Online and downloadable Product Manuals and Quick Start Guides are available at www.HydroSystemsCo.com Please check online for the latest version of this Reference Manual.

WARNING:
The Total Eclipse controller is intended to be installed by experienced installers, in accordance with all applicable electrical and plumbing codes.

Preface

This manual has been written and illustrated to present the basic installation, operation and servicing instructions of the Total Eclipse Chemical Management System. Guidelines will be suggested in reference to the preferred method of installation, however, the variety of equipment and the surrounding environment will dictate the actual installation of the Total Eclipse.

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TOTAL ECLIPSE Controller Specifications

Size	5'25" W x 4.0" H x 2.5" D (13.4 cm W x 10.2 cm H x 6.4 cm D)
Weight	0.65 lb. (0.30 kg)
Power Rating	SELV — Power source is pumpstand
Data Input Field Size	15 characters maximum input for custom names
Pump Capacity maximum	99.99 oz. (2999 ml.) 8 pump (with 3 amount settings per pump)
Environmental	IP Rating – 44 Pollution Category – 2 Installation Category – II
Temperature	10° to 49° C (50° to 120° F) maximum
Humidity	95% relative humidity, maximum
Indoor Installation	Approved for indoor use only. Must not be installed outdoors.
Altitude	Install at or below 6,500 ft.

Installation

STEP 1: Install the Machine Interface (MI)

1. Route MI signal wires through 1/2 inch knock-out on washer (within the wiring area). Secure MI to washer with lock nut (provided). Signal wires are to be connected according to instructions in step two below.
2. Plug J2 cable into MI. Bundle excess J2 cable outside washer and connect other end to J2 connector on rear of Controller.
3. Connect J1 cable from pump module to J1 connector on Controller. The maximum length of J cables should not exceed 75 ft. (22.9 m.) unless using a break out box and hard wiring. Contact Hydro Systems for additional cables, a coupler or detailed instructions.
4. Secure J1 and J2 cables to controller tie-down posts with tie wraps.

STEP 2: Connect Signal Wires

Voltage
The Machine Interface will work with any signal voltage between 24 – 240VAC or 22 – 24VDC. With DC signals, polarity must be observed. Common is negative. The signals should be positive voltages.

Supply Trigger Wiring
Identify the washer supply signals. In Standard or Group Mode of Operation, connect Machine Interface wires to machine supply signals using appropriate terminal connectors. Use table below for reference. (Do not use this table for Event or Occurrence Modes; see Manual.)

Trigger Signal Wiring Notes:

- If one or more pump signals are not used, they do not need to be connected. Cap any wires that are not used.
- If you are triggering more than one pump from a single signal, connect all MI signal wires for those pumps to that signal.
- If washer has a single common, wire nut all commons together.

Trigger	Supply Signal	Signal Common	Connect to: Stand ard (US)	Group (EU)
Signal 1	Black Wire	White/Black	Pump 1	Group 1
Signal 2	Brown Wire	White/Brown	Pump 2	Group 1
Signal 3	Red Wire	White/Red	Pump 3	Group 2
Signal 4	Orange Wire	White/Orange	Pump 4	Group 2
Signal 5	Yellow Wire	White/Yellow	Pump 5	Group 3
Signal 6	Blue Wire	White/Blue	Pump 6	Group 4

WARNING/ADVERTENCIA:

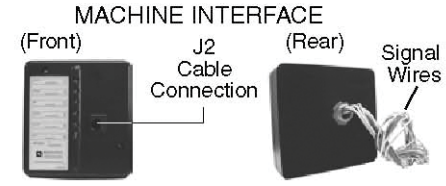
Disconnect all power to the pumpstand during installation, service, and/or any time pump cabinet is opened. The TOTAL ECLIPSE should be installed by a qualified technician only, in accordance with all applicable electrical and plumbing codes.

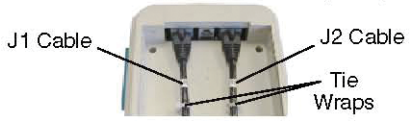
Desconecte toda la corriente eléctrica al dosificador durante la instalación, servicio y / o siempre que se abra el gabinete de la bomba. El equipo TOTAL ECLIPSE debe ser instalado sólo por técnicos calificados y de acuerdo con todas las normas de plomería y electricidad que apliquen.

WARNING/ADVERTENCIA:

Keep MI and communication J cables away from high voltage wires and relays. NEVER parallel the J cables with high voltage lines.

Mantenga M.I. y los cables J de comunicación separados de los cables de alta tensión y relés. NUNCA instale el cable J paralelo con las líneas de alta tensión.





WARNING/ADVERTENCIA:

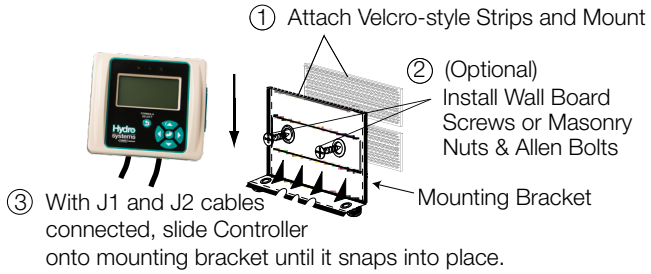
Always verify all voltage sources with a meter. Electrical wiring connections for supply triggers are to be done inside the junction box.

Siempre verifique la alimentación de corriente con un voltímetro. Las conexiones eléctricas a los disparadores de suministro (supply) deben hacerse dentro del recinto donde se encuentran los suministros (supply).

Installation

STEP 3: Mount the Controller

1. Mount bracket with velcro-style strips, according to the directions at right. Install wall board screws or nuts and allen bolts, if needed.
2. Slide controller down onto mounting bracket until it snaps in place.
3. Install pump module and make all electrical and plumbing connections for the system, but DO NOT apply power to the TOTAL ECLIPSE until you are ready to select a language of operation.

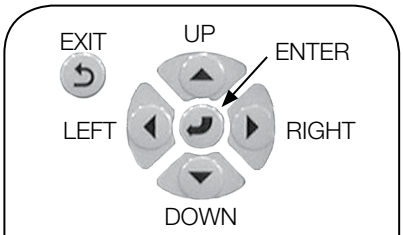

① Attach Velcro-style Strips and Mount
② (Optional) Install Wall Board Screws or Masonry Nuts & Allen Bolts
Mounting Bracket
③ With J1 and J2 cables connected, slide Controller onto mounting bracket until it snaps into place.

Controller Language Options

Each TOTAL ECLIPSE is shipped with two languages installed: English/Spanish. Additional languages, as they become available, may be obtained by contacting Hydro Systems. If changing from default languages, you will need your language-enabled USB flash drive for the next step.

STEP 4: Select the Controller Menu Language

1. Apply power to pumpstand & power-up Controller. Two available LANGUAGES are displayed. (Optional) To replace the non-English language, connect a USB flash drive with the new language to the controller's USB port (under flap on right side of controller).
2. Move the selection box by using the UP or DOWN ARROWS until the correct language is contained within the box.
3. Press ENTER to select a language. All menu and application items are translated into the new language. Text input by the installer (pump and formula name, etc.) remains in the original language and is not translated.



TOTAL ECLIPSE Keypad

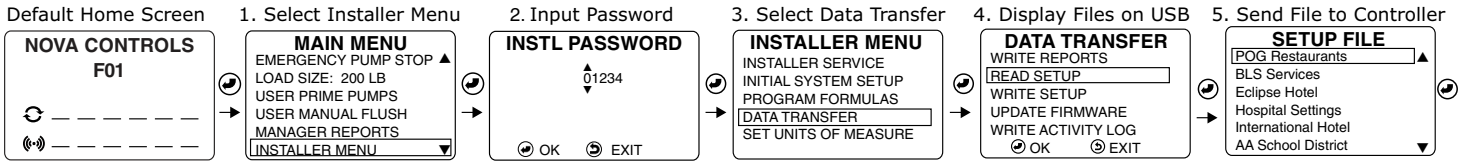
STEP 5: Set the Current Date and Time

1. After the language is set, the DATE & TIME menu appears as YYYY-MM-DD (Year-Month-Day) and HH:MM (Hour:Minute) with the first number of the year selected as the active digit, indicated by the double-arrow cursor.
2. Press the UP or DOWN ARROW to change the active digit. Press the RIGHT ARROW to move the cursor to the next digit. Set all digits until the current Year-Month-Date and Hour:Minute display. NOTE: Time must be set in military time.
3. Press ENTER to save the setting and display the Home Screen.

STEP 6: Program the Controller via USB Flash Drive

The easiest way to program the controller is to load a previously created set-up file from a USB flash drive onto the controller. Settings that are NOT transferred via a USB drive are: Passwords (Installer & Manager); Machine Name; Company Name; Calibration.

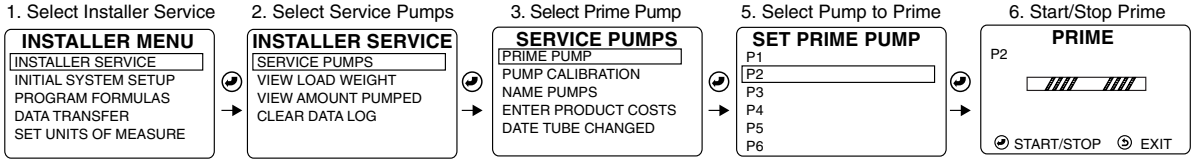
1. Connect the USB flash drive containing set up files that were created in either the Formula Editor or on another controller.
2. From the Home Screen, press ENTER to launch the MAIN MENU.
3. Move the selection box to INSTALLER MENU by pressing and holding the DOWN ARROW.
4. Press ENTER and input the default Installer Password of 01234, using the UP ARROW to increment the number and the RIGHT ARROW to move the cursor.
5. Press ENTER to accept the password input. Select DATA TRANSFER from the Installer Menu and follow the sequence below:



6. Remove USB flash drive. Press EXIT to return to the Installer Menu, in order to prime and calibrate (required) pumps.

STEP 7: Prime Pumps

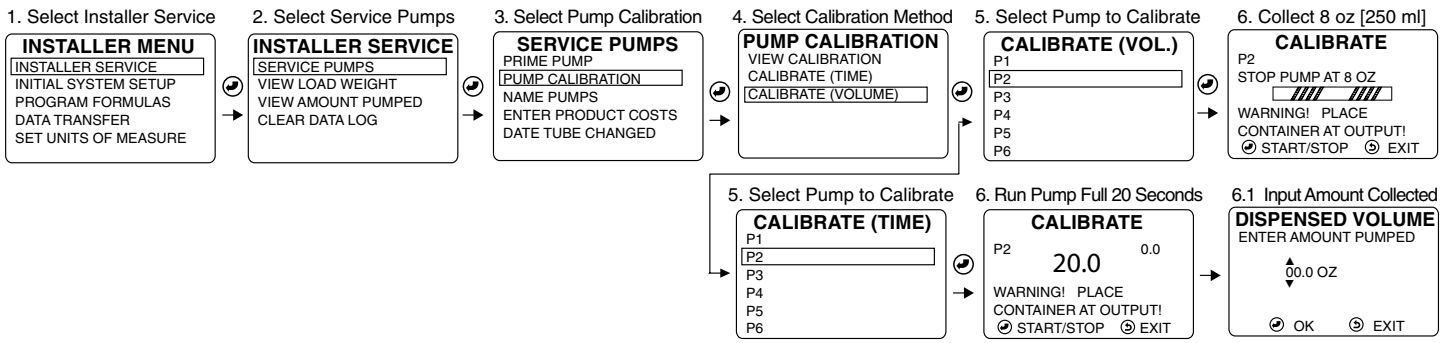
Press ENTER to start and stop prime. After priming is complete, press EXIT until you reach the Home Screen.



STEP 8: Calibrate the Pumps

You must calibrate all pumps to be used; programmed pumps will not run if they are not calibrated. Use CALIBRATE (VOLUME) only for medium (12 or 18 oz. / 355 or 532 ml. per minute) pumps.

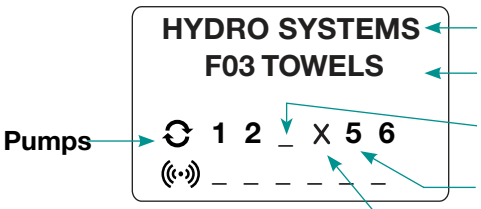
Use CALIBRATE (TIME) for large displacement pumps or for a flush installation. Press START and the timer counts down 20 seconds. DO NOT stop the pump; run it for a full 20 seconds, then enter the amount pumped.



Description of Controls and Operator Menu

Home Screen
The Home Screen appears after the controller language has been selected or whenever the controller is active. If no key is pressed for 15 minutes, Power Save turns off the display's backlight. Press any key to turn the backlight on and resume normal operation. If the controller is powered off, the last formula selected is the active formula on the Home Screen when power is turned back on. See the following graphic for an explanation of the information and symbols that may appear on the Home Screen.

Home Screen (Idle)



Company Name (can be changed during Initial System Setup)

Current Formula (or **Next Formula to Run**) (Formula number appears if no name is input during Initial System Setup)

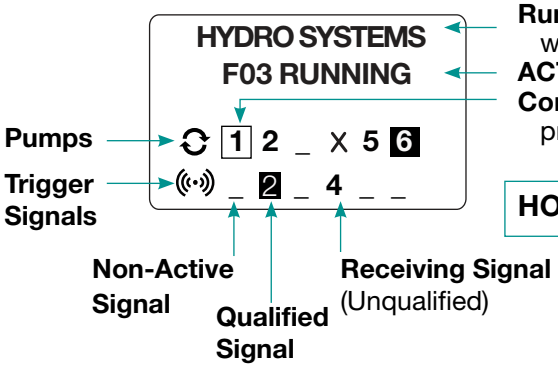
NON-ACTIVE Pump — Not programmed or calibrated; not in formula

READY Pump — Calibrated and has amount(s) programmed

ERROR in Pump — Pump number is not in formula

HOT KEYS: Formula Quick-Select ↺ Main Menu ↵

Home Screen (Running)



Running Formula — Note that formula name is not shown when running

ACTIVE Pump — Currently running

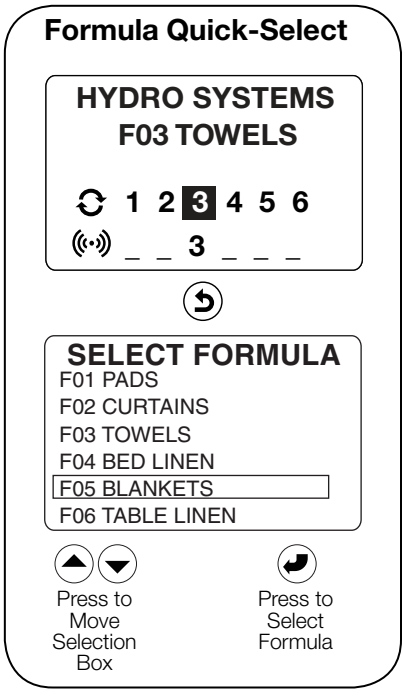
Complete — Box indicates that pump has finished its programmed run

HOT KEYS: Formula Quick-Select ↺ Main Menu ↵

Formula Quick-Select
To prevent errors in data logging or chemical dispensing: Select the correct formula before washer operation starts and be sure that all programmed pumps are triggered during the cycle. (Note: A NO CHEMICAL selection exists after Formula 20 that will allow logging of the load count for special operations).

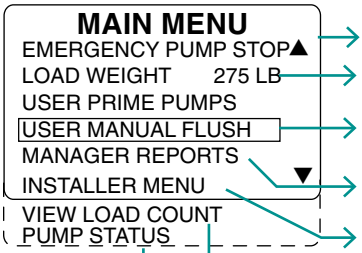
1. From the Home Screen, press EXIT (also called FORMULA SELECT).
2. Press the UP or DOWN ARROW to move the selection box to the correct formula. All formulas appear, but only formulas with programmed pumps are selectable.
3. Press ENTER to start the formula and return to the Home Screen.
4. (Optional) Press ENTER to reach the load weight setting.

Formula Quick-Select



Description of Controls and Operator Menu

Operator Main Menu
To reach the Main Menu from the Home Screen, press any key (except the EXIT key).



Emergency Pump Stop (stops all pumps and formulas).

Load Weight Menu (displays default load weight for formula. Input actual weight at start of each load).

Selection Box—Move box to select menu item. Press ENTER to launch selected menu.

Print Manager Reports—Input Manager password, then FROM/TO date range.

Installer Programs and Settings—Input installer password.

View Load Count—View the number of loads run for each wash formula. The View Load Count text appears on the screen when the selection box is moved down the screen with the DOWN arrow key.

Pump Status—View the status and settings of each pump. The PUMP STATUS text appears on the screen beneath VIEW LOAD COUNT when the selection box is moved down the screen using the DOWN arrow key.

RETURN TO HOME SCREEN: Press EXIT or wait 15 seconds without pressing a key.

Limited Warranty

Seller warrants solely to **Buyer** the Products will be free from defects in material and workmanship under normal use and service for a period of one year from the date of completion of manufacture. This limited warranty does not apply to (a) hoses; (b) and products that have a normal life shorter than one year; or (c) failure in performance or damage caused by chemicals, abrasive materials, corrosion, lightning, improper voltage supply, physical abuse, mishandling or misapplication. In the event the Products are altered or repaired by **Buyer** without **Seller's** prior written approval, all warranties will be void. **No other warranty, oral, express or implied, including any warranty of merchantablilty or fitness for any particular purpose, is made for these products, and all other warranties are hereby expressly excluded.**

Seller's sole obligation under this warranty will be, at **Seller's** option, to repair or replace F.O.B. **Seller's** facility in Cincinnati, Ohio any Products found to be other than as warranted.

Limitation of Liability

Seller's warranty obligations and Buyer's remedies are solely and exclusively as stated herein. Seller shall have no other liability, direct or indirect, of any kind, including liability for special, incidental, or consequential damages or for any other claims for damage or loss resulting from any cause whatsoever, whether based on negligence, strict liability, breach of contract or breach of warranty.

TOTAL ECLIPSE Operator Menus

Home Screen

HYDRO SYSTEMS
F02 CURTAINS
1 2 3 X 5 6 7 8
_ 2 _ _ _ _

Formula Select

SELECT FORMULA
F01 PADS
F02 CURTAINS
F03 TOWELS
F04 BED LINEN
F05 BLANKETS
F06 TABLE LINEN

Select & Return to Home Screen

Main Menu (Emergency Pump Stop)

MAIN MENU
EMERGENCY PUMP STOP
LOAD WEIGHT 275 LB
USER PRIME PUMPS
USER MANUAL FLUSH
MANAGER REPORTS
INSTALLER MENU
VIEW LOAD COUNT

Emergency Pump Stop

EMERGENCY STOP
STOP ALL PUMPS AND FORMULAS
STOP EXIT

Main Menu (Load Size)

MAIN MENU
EMERGENCY PUMP STOP
LOAD SIZE 275 LB
USER PRIME PUMPS
USER MANUAL FLUSH
MANAGER REPORTS
INSTALLER MENU
VIEW LOAD COUNT

Input Actual Load Weight

LOAD WEIGHT
220 LB
(SINGLE LOAD)
OK EXIT

Main Menu (User Prime Pump)

MAIN MENU
EMERGENCY PUMP STOP
LOAD SIZE 275 LB
USER PRIME PUMPS
USER MANUAL FLUSH
MANAGER REPORTS
INSTALLER MENU
VIEW LOAD COUNT

Select Pump to Prime (if enabled)

SET PRIME PUMP
P1 PRE-WASH
P2 DETERGENT
P3 LIQUID BLEACH
P4 BLEACH ALTERNATIVE
P5 SOUR/CONDITI
P6 ENZYME LIFT

Start / Stop Prime Pump

PRIME
P3 LIQUID BLEACH
START/STOP EXIT

Main Menu (User Manual Flush)

MAIN MENU
EMERGENCY PUMP STOP
LOAD SIZE 275 LB
USER PRIME PUMPS
USER MANUAL FLUSH
MANAGER REPORTS
INSTALLER MENU
VIEW LOAD COUNT

Start/Stop Flush (if flush enabled)

MANUAL FLUSH
START/STOP EXIT

Main Menu (Manager Reports)

MAIN MENU
EMERGENCY PUMP STOP
LOAD SIZE 275 LB
USER PRIME PUMPS
USER MANUAL FLUSH
MANAGER REPORTS
INSTALLER MENU
VIEW LOAD COUNT

Input Manager Password

MGR PASSWORD
0 1 2 3
OK EXIT

Set Date for Report Header

REPORT DATE
00-00-00
OK EXIT

Set "**SAVE AS**" File Name & Date

REPORT NAME
WASH23 12-10-08
INSERT USB DRIVE
OK EXIT

Main Menu (View Load Count)

MAIN MENU
EMERGENCY PUMP STOP
LOAD SIZE 275 LB
USER PRIME PUMPS
USER MANUAL FLUSH
MANAGER REPORTS
INSTALLER MENU
VIEW LOAD COUNT

View Load Count

TOTAL LOAD COUNT

F01 PADS	0
F02 CURTAINS	0
F03 TOWELS	0
F04 BED LINEN	0
F05 BLANKETS	0
F06 TABLE LINEN	0

Display returns to Main Menu after data transfer is complete.

Guide to Keypad & Menus

SELECTION BOX = UP/DOWN Arrows Move Selection Box; ENTER Key Launches Menu Item; ENTER also Starts/Stops Action

EDIT VALUE (350 LBS =) UP/DOWN Arrows Input Value (0-9, A-Z); LEFT/RIGHT Arrows Move Cursor; ENTER Saves & Exits; or EXIT Only

MENU SYMBOLS F02 F03 F04 More Items; Pumping (Flush Off); Steady On Flushing; Pumping & Flushing

HOME SCREEN Pump Icon; Trigger Signal Icon

Installer Menu Access

MAIN MENU
EMERGENCY PUMP STOP
LOAD SIZE 180 LB
USER PRIME PUMPS
USER MANUAL FLUSH
MANAGER REPORTS
INSTALLER MENU

INSTL PASSWORD
0 1 2 3 4
OK EXIT

TOTAL ECLIPSE

Top Level Installer Menus

(factory default settings shown in selection boxes)